## Executive Summary

The public education establishment routinely argues that school choice programs, where "the money follows the child," harm students who remain in public schools. They suggest that students who remain in public schools are worse off because there will be fewer resources available for their education once some children depart public school districts via school choice. That is, there will be fewer students and, consequently, fewer taxpayer dollars to cover the substantial fixed costs of running a school.

Instead, research shows that all forms of school choice tried in the United States have led to improvement in academic outcomes for students who remain in public schools or have led to no effect on academic outcomes for students who remain in public schools. Thus, the evidence on academic outcomes is one-sided. Greater school choice does not harm academic outcomes for students who remain in public schools.

But what about money? The evidence on the fiscal effect of school choice on public school districts is not readily available. Costrell (2008, 2010) shows that it is straightforward to design a school choice program that saves taxpayers money.[1] He also suggests that the fiscal effect of a given school choice program on local school district budgets is more complicated. Specifically, school choice programs that allow school districts to retain funding for any fixed costs would not harm the fiscal health of public schools or decrease resources available to students who remain in public schools.

In this report, I construct the first ever estimates for each state and the District of Columbia of the short-run fixed costs of educating children in public schools. I endeavor to make cautious overestimates of these short-run fixed costs.

The United States' average spending per student was $12,450 in 2008-09. I estimate that 36 percent of these costs can be considered fixed costs in the short-run. The remaining 64 percent, or $7,967 per student, are found to be variable costs, or costs that change with student enrollment. The implication of this finding is that a school choice program where less than $7,967 per student is redirected from a child's former public school to another school of his or her parents' choosing would actually improve the fiscal health of the average public school district. And, it would provide more resources for students who remain in public schools.

New York has the highest estimate of short-run variable costs per student at $13,741 per student. Utah has the lowest, at $5,192 per student. The estimates of variable costs per student vary widely among states for two reasons. First, some states devote more taxpayer funding to public education. Second, some states spend much higher proportions of their education dollars on instruction (a variable cost) relative to other states.

In the interest of creating an overestimate of fixed costs, this report treats the following as fixed costs in the short-run: expenditures on capital, interest, general administration, school administration, operations and maintenance, transportation, and "other" support services. Of course, if a significant number of students left a school district from one year to the next, some of these costs could be reduced immediately. For example, a school losing a large number of students could reduce the number of assistant principals from two to one; there could be fewer bus routes; two schools could be merged into one; etc. However, the goal of this report is to create an overestimate of fixed costs. A cautious overestimate allows us to be comfortable that school choice programs where "the money follows the child" can be designed in such a manner to improve the fiscal situation of public school districts.

While I treat expenditures on capital, interest, general administration, school administration, operations and maintenance, transportation, and "other" support services as fixed costs in the short-run for the present analysis, all of these costs are variable in the long-run. Public schools can make new strategic decisions in these areas in response to permanent changes in their student counts. Thus, after a few years of a new school choice program, when enrollment trends become apparent, all taxpayer funds devoted to K-12

education can "follow the child" to the schools their parents deem better.

The proper way to think about this issue is not whether public school districts have in the past reduced costs when students in large numbers left the district for any reason. The issue is whether they are able to do so. Evidence that school districts increased expenditures when the number of students they served significantly decreased does not necessarily mean that they cannot decrease expenditures when students leave. Perhaps they did not have to reduce expenditures when students left because one or more levels of government chose not to reduce taxpayer funding, so districts did not reduce expenditures.

The key question for this analysis is the following:

> **If a significant number of students left a public school district for any reason from one year to the next, then is it feasible for the district to reduce some of its expenditures commensurate with the decrease in its student population?**

The answer that comes from analyzing the finances of large and small school districts that lost students is "yes." Both the large school districts and the small ones were able to reduce the combination of instructional and support expenses at a higher rate than the losses in students. Thus, these costs were variable, even in the short-run.

The rationale as to why a loss of students and the funding associated with those students could increase the performance of traditional public schools is twofold. First, a large number of empirical studies have found very large differences in teaching effectiveness across public school teachers.[2] If public schools lose students and funding, they could choose to lay off the least effective teachers. The remaining students would be reassigned to more effective teachers, which would lead of a significant improvement in their academic achievement. Second, Chakrabarti (2007) has shown theoretically and empirically that when more money follows the child, the incentives are stronger for public school leaders to improve their schools. In Milwaukee, they did improve the public schools when there was an increase in the amount of money that followed voucher students to private schools.[3]

## TABLE 6 Short-run Fixed and Variable Costs by State, 2008-09

| State or Jurisdiction | Total Expenditures Per Student | Short-run Fixed Costs | Percent of Total Costs that are Short-run Fixed Costs | Short-run Variable Costs | Percent of Total Costs that are Short-run Variable Costs |
|---|---|---|---|---|---|
| United States | $12,450 | $4,483 | 36.0% | $7,967 | 64.0% |
| Alabama | $10,642 | $3,835 | 36.0% | $6,807 | 64.0% |
| Alaska | $18,058 | $6,883 | 38.1% | $11,175 | 61.9% |
| Arizona | $9,607 | $3,715 | 38.7% | $5,892 | 61.3% |
| Arkansas | $10,152 | $3,359 | 33.1% | $6,793 | 66.9% |
| California | $11,397 | $4,229 | 37.1% | $7,168 | 62.9% |
| Colorado | $10,669 | $4,370 | 41.0% | $6,299 | 59.0% |
| Connecticut | $17,462 | $5,925 | 33.9% | $11,537 | 66.1% |
| Delaware | $14,700 | $6,088 | 41.4% | $8,612 | 58.6% |
| District of Columbia | $27,155 | $14,134 | 52.0% | $13,021 | 48.0% |
| Florida | $11,097 | $4,357 | 39.3% | $6,740 | 60.7% |
| Georgia | $11,468 | $3,961 | 34.5% | $7,507 | 65.5% |
| Hawaii | $13,504 | $3,623 | 26.8% | $9,881 | 73.2% |
| Idaho | $8,618 | $3,223 | 37.4% | $5,395 | 62.6% |
| Illinois | $13,456 | $4,999 | 37.1% | $8,457 | 62.9% |
| Indiana | $10,582 | $4,014 | 37.9% | $6,568 | 62.1% |
| Iowa | $11,726 | $4,082 | 34.8% | $7,644 | 65.2% |
| Kansas | $11,441 | $3,749 | 32.8% | $7,692 | 67.2% |
| Kentucky | $10,501 | $3,723 | 35.5% | $6,778 | 64.5% |
| Louisiana | $12,075 | $4,276 | 35.4% | $7,799 | 64.6% |
| Maine | $13,368 | $4,250 | 31.8% | $9,118 | 68.2% |
| Maryland | $15,113 | $4,756 | 31.5% | $10,357 | 68.5% |
| Massachusetts | $15,728 | $4,198 | 26.7% | $11,530 | 73.3% |
| Michigan | $11,987 | $4,436 | 37.0% | $7,551 | 63.0% |
| Minnesota | $13,555 | $5,050 | 37.3% | $8,505 | 62.7% |
| Mississippi | $8,948 | $2,977 | 33.3% | $5,971 | 66.7% |
| Missouri | $11,728 | $4,421 | 37.7% | $7,307 | 62.3% |
| Montana | $11,530 | $4,004 | 34.7% | $7,526 | 65.3% |
| Nebraska | $12,715 | $4,228 | 33.3% | $8,487 | 66.7% |
| Nevada | $10,501 | $4,450 | 42.4% | $6,051 | 57.6% |
| New Hampshire | $13,418 | $3,713 | 27.7% | $9,705 | 72.3% |
| New Jersey | $18,549 | $5,792 | 31.2% | $12,757 | 68.8% |
| New Mexico | $11,849 | $4,608 | 38.9% | $7,241 | 61.1% |
| New York | $19,983 | $6,242 | 31.2% | $13,741 | 68.8% |
| North Carolina | $9,729 | $3,157 | 32.4% | $6,572 | 67.6% |
| North Dakota | $11,043 | $3,795 | 34.4% | $7,248 | 65.6% |
| Ohio | $12,871 | $4,924 | 38.3% | $7,947 | 61.7% |
| Oklahoma | $8,716 | $2,855 | 32.8% | $5,861 | 67.2% |
| Oregon | $11,514 | $4,483 | 38.9% | $7,031 | 61.1% |
| Pennsylvania | $14,648 | $5,639 | 38.5% | $9,009 | 61.5% |
| Rhode Island | $15,547 | $4,065 | 26.1% | $11,482 | 73.9% |
| South Carolina | $11,667 | $4,551 | 39.0% | $7,116 | 61.0% |
| South Dakota | $10,074 | $3,790 | 37.6% | $6,284 | 62.4% |
| Tennessee | $8,895 | $2,687 | 30.2% | $6,208 | 69.8% |
| Texas | $11,149 | $4,705 | 42.2% | $6,444 | 57.8% |
| Utah | $8,640 | $3,448 | 39.9% | $5,192 | 60.1% |
| Vermont | $16,035 | $4,487 | 28.0% | $11,548 | 72.0% |
| Virginia | $12,264 | $3,967 | 32.3% | $8,297 | 67.7% |
| Washington | $11,917 | $4,576 | 38.4% | $7,341 | 61.6% |
| West Virginia | $11,305 | $3,418 | 30.2% | $7,887 | 69.8% |
| Wisconsin | $12,843 | $4,547 | 35.4% | $8,296 | 64.6% |
| Wyoming | $19,037 | $8,167 | 42.9% | $10,870 | 57.1% |

Source: National Center for Education Statistics, 2011, Author's Calculations